

### **REMARKS**

This is in response to the Office Action mailed on March 10, 2004, and the references cited therewith.

Claims 21-24, 26, and 27 are amended. No claims are canceled or added. As a result, claims 1-38 remain pending in this application.

For the convenience of the Examiner, Applicant's remarks concerning the claims will be presented in the same order in which the Examiner presented them in the Office Action.

### **Amendments to the Specification**

On page 1, line 8, Applicant has substituted "Related Applications" for the sub-title "Related Inventions".

On page 1, in the paragraphs beginning on lines 9 and 14, Applicant has substituted "application" for every occurrence of "invention".

On page 1, in the paragraph beginning on line 17, Applicant has updated the status of the related application.

No new matter has been introduced through these amendments.

### **Amendments to Claims 21-24, 26, and 27**

Each of original claims 21-24, 26, and 27 has been amended by changing the verb forms. No new matter has been introduced.

The amendments to the claims are made to satisfy Applicant's preferences, not to satisfy any legal requirement(s) of the patent laws, and they are not intended to limit the scope of equivalents to which any claim element may be entitled.

### **Two Information Disclosure Statements Previously Submitted**

Applicant filed an Information Disclosure Statement with the U.S. Patent Office on December 29, 2000. In addition, Applicant filed a Supplemental Information Disclosure Statement with the U.S. Patent Office on February 15, 2001. To date, Applicant has not received

copies of the Form 1449 filed therewith and marked as being considered by the Examiner. Pursuant to the provisions of MPEP 609, Applicant requests that copies of the Form 1449, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

### **Cross-Reference to Related Applications**

The Examiner requested that Applicant update the status of the related applications cited in the specification. As mentioned above in the section entitled "Amendments to the Specification", Applicant has updated the status of the related applications insofar as their current status is known.

### **Appendices A and B**

The Examiner mentioned that Applicant should consult MPEP §608.05(a) as to what materials Applicant may place in an appendix. The Examiner stated that if Applicant feels the current materials within the appendices are needed in order to make the invention work, then Applicant is advised to place such materials within formal drawings.

Because most of the Appendices A and B are quite lengthy and very detailed, Applicant respectfully requests the Examiner to reconsider this recommendation. Appendix A includes Tables (1) through (11), while Appendix B includes Algorithms (1) through (15). The Tables and Algorithms contain numerous non-ASCII characters. The Examiner will appreciate the difficulty in converting Appendices A and B to formal drawings.

In addition, Applicant notes, regarding Anderson et al. (U.S. Patent No. 5,448,735), which was applied in the Examiner's rejection of claims 1-38, that Anderson contains an Appendix A that reproduces an entire co-pending application. The co-pending application has very clearly been photocopied. Columns 69-72, 79-80, and 83-84 contain photocopy reproductions of tables. These tables are not nearly so complex as certain of Applicant's Tables. In addition, Columns 87-92 of the co-pending application in Appendix A of the Anderson patent contain photocopy reproductions of mathematical equations. Again these equations are not nearly so complex as certain of Applicant's Algorithms.

The Examiner will further appreciate that, not only for convenience but more importantly for accuracy, Applicant's Appendices A and B have been photocopied directly from Applicant's invention disclosure materials. Due to the length and complexity of these Appendices, it is very likely that typographical errors will be inadvertently introduced, even with reasonably careful proof-reading, if the Examiner insists that they be converted to formal drawings. Applicant respectfully suggests that the public interest would be better served by current Appendices A and B rather than by converting them to formal drawings.

Applicant notes that the Office Action does not contain a formal objection to current Appendices A and B. Applicant respectfully requests that the Examiner approve current Appendices A and B for the reasons presented above.

**Rejection of Claims 1-38 under 35 U.S.C. §103(a) as Unpatentable  
over Atlas in view of Anderson**

Claims 1-38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Atlas et al. ("Slack Stealing Job Admission Control") in view of Anderson et al. (U.S. Patent No. 5,448,735).

Atlas discloses a slack-stealing job admission control system for scheduling periodic firm-deadline tasks with variable resource requirements. Refer to the Abstract.

Anderson discloses linking and grouping together a number of modules that are related to a particular task. By grouping together the related modules that form a task, error conditions and data for each of the tasks and modules are said to be handled more efficiently. Modules may reference common storage areas they require so that unnecessary loading/saving of data in those common storage areas may be avoided. Refer to the Abstract. It is noted that Applicant is unable to find any mention whatsoever of "slack" or "allocating slack" within Anderson.

Regarding independent claim 1, the Examiner concedes that Atlas fails to disclose a determining step taking into account tasks that are activating and inactivating. However, the Examiner states it would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Atlas and Anderson to ensure that a task can be activated or deactivated at any time, thereby enabling the user to determine and use excess slack, thus making the entire system more efficient.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine them to arrive at Applicant's claimed subject matter. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. MPEP §2143.

Independent claim 1 recites *inter alia* a method of scheduling tasks that comprises determining available slack for tasks at each priority level, taking into account tasks that are activating and inactivating, and allocating slack to tasks in order of priority. Applicant respectfully asserts that the Examiner fails to provide any specific factual basis within either Atlas or Anderson that would provide any credible motivation to combine these two complex inventions in the manner suggested by the Examiner. Moreover, Applicant respectfully points out that the Examiner has failed to provide any specific basis (i.e. column or page, and line number) within either reference for the limitation "allocating slack to tasks in order of priority".

To establish a *prima facie* case of obviousness under 35 U.S.C. §103, the prior art reference (or references when combined) must teach or suggest every limitation of the claim. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA, 1974). MPEP §2143.

As pointed out earlier, Anderson appears to contain no disclosure whatsoever concerning "slack" or "allocating slack". Nor, as the Examiner concedes, does Atlas appear to contain any disclosure concerning "taking into account tasks that are activating and inactivating". Thus, Applicant respectfully asserts that the suggested combination of Atlas and Anderson is based solely upon hindsight and would not have been suggested but for Applicant's own disclosure.

Therefore, Applicant respectfully asserts that a *prima facie* case of obviousness has not been established. First, the Examiner has not provided any teaching, suggestion, or motivation in the references themselves. Secondly, the Examiner has not provided any credible teaching, suggestion, or motivation in the knowledge generally available to one of ordinary skill in the art, to combine the Atlas and Anderson references to arrive at Applicant's claimed subject matter.

For the above reasons, independent claim 1 should be found to be allowable over any combination of Atlas and Anderson, and Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. §103(a) as being unpatentable over Atlas in view of Anderson should be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. MPEP §2143.03.

Claims 2-9, which depend from claim 1, directly or indirectly, and incorporate all of the limitations therein, are also asserted to be allowable for the reasons presented above.

Independent claims 10, 11, 20, 21, and 29, along with their associated dependent claims, were rejected based upon the same grounds as independent claim 1. Applicant respectfully asserts that these claims are all patentable over any suggested combination of Atlas and Anderson for the reasons present earlier regarding independent claim 1. Applicant respectfully requests that the rejection of claims 10-38 under 35 U.S.C. §103(a) as being unpatentable over Atlas in view of Anderson should be withdrawn.

#### **Additional Elements and Limitations**

Applicant considers additional elements and limitations of claims 1-38 to further distinguish over the cited references, and Applicant reserves the right to present arguments to this effect at a later date.

#### **Documents Cited But Not Relied Upon For This Office Action**

Applicant need not respond to the assertion of pertinence stated for the references cited but not relied upon by the Office Action, because these references are not made part of the rejections in this Office Action. Applicant is expressly not admitting to this assertion and reserves the right to address the assertion should it form part of future rejections.

**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111**

Serial Number: 09/751,955

Filing Date: December 29, 2000

Title: METHODS AND APPARATUS FOR SLACK STEALING WITH DYNAMIC THREADS

Page 15

Dkt: 256.049US1

**Conclusion**

Applicant respectfully submits that claims 1-38 are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Walter W. Nielsen (located in Phoenix, Arizona) at (602) 298-8920 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

PAMELA A. BINNS

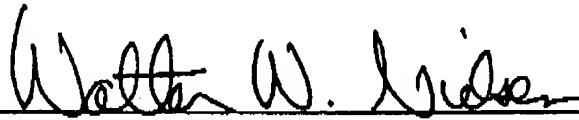
By her Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 373-6972

Date

June 10, 2004

By



Walter W. Nielsen  
Reg. No. 25,539

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 10 day of June, 2004.

Gina M. Uphus

Name



Signature